

Question Paper for selection to the Group-B post of ADSTE/ASTE (70% quota) in Pay Matrix Level-8 on SWR

Date of Exam: 26.11.2021
Time Allowed: Two (02) Hours

Maximum Marks: 100

Important Instructions to Candidates

- (1) The candidate should use either Blue or Black Ink Pen/Ball Pen. All the questions should be answered with the same colour of ink used for writing fly-leaf/first page of the answer book. Marking of the answers with pencil is strictly not allowed.
- (2) The written examination comprises of objective type multiple choice questions. Attempt only 100, out of 110 questions. Each question carries one (01) mark.
- (3) Question No. 1 to 30 are compulsory (30 Questions on Establishment Rules & Financial Rules).
- (4) Attend only 70 questions from Question No. 31 to 110 (70 Questions Technical Subject + 10 optional Questions on Official Language Policy).
- (5) If any candidate has answered questions in excess of required number, the first attempted 100 questions only will be evaluated & the rest will be ignored.
- (6) There shall be negative marking for incorrect answers. One-third (1/3rd) of the marks allotted for each question will be deducted for every wrong answer.
- (7) To ensure authenticity of the answers, corrections of any type (viz. cutting, overwriting, scoring off a ticked answer & ticking another answer, erasing, modifying the answer in any way) will not be permitted. The same will be counted against the 100 attempted questions but "zero" marks will be awarded in such cases of corrections.
- (8) The answers should invariably be written in CAPITAL LETTERS only (For example A, B, C or D) in the box provided against the question number for both English as well as Hindi versions of Questions.
- (9) Candidate should answer the objective type questions only in the answer book supplied. Indication of the name or any other identity of the candidate, or any other random marking in the answer book, except in the column provided on the fly-leaf of the answer book is prohibited.
- (10) Usage of electronic gadgets in any form i.e. Mobile-Phone, Bluetooth, Ear-Phone, Wrist-Watch etc. is strictly prohibited.
- (11) The log table, slide ruler & calculator are not permitted.
- (12) After completion of the exam, candidate has to cross the unanswered boxes in the Answer book.

1	A _____ estimate is attached along with a works proposal		
A	Detailed estimate	C	Sanctioned estimate
B	Revised estimate	D	Abstract estimate
2	IRPSM application is used for processing		
A	Stores indent	C	Works proposals
B	Tenders	D	Passing of bills
3	The scope of EPC contracts covers		
A	Construction	C	Engineering
B	Procurement	D	All the above
4	Security Deposit, in case the work has a maintenance period, can be passed based on		
A	No claim	C	Passing of final bill
B	Completion Certificate	D	None of the above
5	Liquidated damages (LD) shall not exceed _____ of Contract value.		
A	10%	C	25%
B	5%	D	2%
6	The cost of e-Tender form is		
A	Rs. 200	C	Free of Cost
B	Rs. 500	D	None of the above.
7	IREPS is used for		
A	Works tenders	C	A and B
B	Stores tenders	D	For issuing e-Pass
8	In Works tender, eligibility criteria are not applicable for tenders of value up to Rs		
A	50 lakhs	C	1 crore
B	20 lakhs	D	2 crores
9	Expanded form of MB in reference to works tenders is:		
A	Money Book	C	Measurement Brochure
B	Measurement Book	D	Modified Book
10	Which of the following can be procured through Works Contract?		
A	Integrated Power supply system.	C	LED Signal units
B	Railway Signalling Cables.	D	Electronic Interlocking (EI) system.
11	The level of the tender committee in Works Tenders is the		
A	JAG	C	SAG
B	Senior scale	D	As determined by the SOP

12	S&T workshops are located at		
A	Podanur	C	Mettuguda
B	Gorakhpur	D	All the above

13	What is the frequency of verification of Stores with Imprest holders?		
A	Once in 1 year	C	Once in 6 months
B	Once in 2 years	D	Once in 3 years

14	IRISET is headed by		
A	Director	C	Dean
B	Principal	D	Director General

15	Special class railway apprentices are recruited by		
A	RRB	C	RRC
B	UPSC	D	None of the above

16	The work of replacement of PI with EI is proposed in		
A	PH16	C	PH33
B	PH29	D	PH65

17	_____ is a prerequisite for calling Tenders for execution of works		
A	Detailed Estimate	C	Sanctioned Estimate
B	Abstract Estimate	D	None of the above

18	The revenue demand for maintenance of Signal and Telecom assets is		
A	Demand No. 7	C	Demand No. 4
B	Demand No. 6	D	None of the above

19	All charges for maintenance and repairs after opening of the line for traffic are accounted under Head _____		
A	Capital	C	OLW
B	DRF	D	Ordinary Revenue

20	Transfer of Funds originally assigned for expenditure for a specific Project to supplement the fund sanctioned for another Project is called		
A	Appropriation	C	Final modification
B	Re-appropriation	D	Budget grant

21	The detailed distribution of Budget Allotment made to Railway Administration is contained in		
A	Yellow book	C	Pink book
B	Green book	D	White paper

22	Commutated portion of pension is restored after _____ years		
A	06	C	20
B	15	D	25

23	Which of the following is not a penalty?		
A	Suspension	C	Censure
B	Removal from Service	D	Reduction to Lower Grade

24	The maximum limit of gratuity given to the employees is Rs. _____ lakhs.		
A	10	C	20
B	15	D	25

25	Maximum transfer grant is		
A	50% of basic	C	100% of basic
B	80% of basic	D	75% of basic

26	_____ is the Standard form served for Minor penalty.		
A	SF2	C	SF5
B	SF11	D	SF9

27	Maximum commutation of pension is		
A	25%	C	50%
B	40%	D	20%

28	S&T Technician cadre is classified as _____ category as per HOER.		
A	Essentially intermittent	C	Continuous
B	Intensive	D	Excluded

29	Maximum number of LAP that can be encashed at the time of superannuation/retirement is		
A	315 Days	C	270 Days
B	300 Days	D	240 Days

30	A Group B officer is eligible for _____ number of Privilege Passes per calendar year.		
A	3	C	5
B	4	D	6

31	For increasing speeds upto 130 kmph, the standard of interlocking to be provided at a station is		
A	Standard I	C	Standard II R
B	Standard III	D	None of the above.

32	Catch siding shall be provided		
A	To protect a Station section	C	Both A and B
B	To protect the Block section	D	None of the above

33	HR picks up on		
A	picking RR & ASR and dropping UCR.	C	picking RR, UCR and ASR.
B	picking RR, UCR and dropping ASR.	D	picking RR and dropping UCR & ASR.

34	In RE area, the type of track circuit used is		
A	Open Single Rail	C	Open Double Rail
B	Closed Single Rail	D	Closed Double Rail

35	In a stop signal with route indicator, off aspect can be displayed when _____ or more number of route indication lamps are lit		
A	2	C	3
B	1	D	4

36	The minimum and maximum excitation of QTA2 type relay is _____ of rated PU voltage respectively		
A	125%,250%	C	85%,250%
B	125%,300%	D	85%,300%

37	Normal aspect of an automatic signal is		
A	CAUTION	C	PROCEED
B	ATTENTION	D	DANGER

38	Codal life for EI system is		
A	15 years	C	30 years
B	20 years	D	40 years

39	Back up supply to the IPS system is		
A	230V DC	C	110 V DC
B	110V AC	D	230 V AC

40	The pick up voltage should be _____ the drop away voltage of a relay		
A	Lesser than	C	Greater than
B	Equal to	D	None of the above.

41	In case a Signal falling within ____m from the OHE contact wire, the protection screen shall be provided & connected to earth.		
A	5	C	3
B	2	D	4

42	Block instrument that can be provided in Electrified Single line section is		
A	Modified PTJ Push button Instrument	C	Both A & B
B	DAIDO make Block Instrument	D	None of the above

43	A semi Automatic stop signal is provided with		
A	A marker	C	No marker
B	illuminated A marker	D	None of the above

44	The secondary cell of _____ is provided for a Track circuit.		
A	12/24 AH	C	100/120 AH
B	40/80 AH	D	Any of the above

45	Codal life of a Main signal LED aspect is		
A	8 years	C	15 years
B	12 years	D	20 years

46	Mandatory visibility of a Permissive signal in MACLS in a Single Distant territory is ____ M.		
A	600	C	400
B	200	D	500

47	In Absolute block territory the route holding for Main line starter is achieved by		
A	Dead Approach locking	C	Approach locking
B	No approach locking	D	None of the above

48	As per GR.3.13, referring Calling-On signal, which of the following is not correct:		
A	Calling-On signal is a subsidiary signal.	C	It shall show no light in the 'ON' position.
B	It can be a miniature colour light provided with a 'C' marker.	D	It can be provided below any stop signal.

49	Track locking is bypassed by its own WLR _____ contact as stick path, so that once a point movement is started, it completes its operation even the track down occurs during operation		
A	front	C	either (a) or (b)
B	back	D	Not required, as timer will ensure.

50	'Obstruction test' for Interlocked points is carried out with a test piece of thickness		
A	2 mm	C	7 mm
B	5 mm	D	10 mm

51	Goods warning board in Single Distant territory is placed at not less than _____ mtrs from the First Stop Signal.		
A	1000	C	1300
B	1200	D	1400

52	Calling on signal is _____ signal of a station		
A	Last Stop signal	C	Permissive signal
B	First Stop signal	D	None of the above.

53	The following equipment is provided to prevent signal passing at danger (SPAD) cases.		
A	TPWS	C	EI
B	Data loggers	D	HASSDAC

54	If a signal is required to be placed on right hand side of the relevant track, the competent authority to approve is		
A	GM	C	PCOM
B	PCSTE	D	CRS

55	Earth resistance for BPAC equipment should ideally be less than -----.		
A	15 ohms	C	5 ohms
B	10 ohms	D	1 ohm

56	The RC (refresher course) training shall be provided to Signal Technicians for every _____ year/s.		
A	1	A	3
B	2	B	None of the above

57	Traffic census in LC gates is done once in _____		
A	5	C	3
B	4	D	2

58	"Approved Special Instruction" is an instruction approved by :		
A	GM	C	PCOM
B	CRS	D	Railway Board

59	The max. stroke of a IRS Point machine is _____ mm.		
A	105	C	160
B	143	D	200

60	The hexadecimal system has a base of _____		
A	2	C	16
B	4	D	8

61	The Loop resistance of a 6 Quad cable conductor of 0.9 mm dia at 20 degrees C is _____		
A	56 Ohms.	C	28 Ohms.
B	96 Ohms.	D	None of the above.

62	The average attenuation of the pairs at 150 KHz shall not exceed the value for conductor dia 0.9mm is _____		
A	8.25 dB/km	C	4.4 dB/km
B	6.3 dB/km	D	None of the above

63	The phone provided in SP/SSP is _____		
A	TPC	C	TLC
B	Section control	D	None of the above

64	Maximum permissible length of direct feed of signals on double line RE section, with unscreened cable is :		
A	120 M	C	180 M
B	220 M	D	280 M

65	MTRC provides a means of communication from the control office directly to		
A	Loco Pilot	C	Station Master
B	Track side maintenance staff	D	All the above

66	The loss offered by a fusion splice of Optic fibre shall not exceed _____ db.		
A	0.05	C	1.5
B	0.005	D	0.2

67	The advantage of Optic fibre cable is		
A	Low power consumption	C	Free of EMI
B	Extremely high capacity	D	All the above

68	The authority to proceed into block section during normal working for loco pilot in a tokenless territory is		
A	Written authority	C	Advanced starter OFF aspect
B	PN Exchange over VHF	D	None of the above

69	The Ultra High Frequency (UHF) range is		
A	3 MHZ to 30 MHZ	C	30 MHZ to 300 MHZ
B	300 KHZ to 3 MHZ	D	300 MHZ to 3000 MHZ

70	As per latest Railway Board guidelines communication backbone shall be		
A	MPLS TP	C	IP MPLS
B	SDH	D	PDH

71	The data rate of STM-1 is		
A	622.080 Mbits/s	C	155.52 Mbits/s.
B	2.488 Mbits/s	D	2.048 Mbps

72	In Intermediate block signalling, line clear is needed to operate		
A	LSS of sending station	C	IB Signal
B	FSS of receiving station	D	None of the above.

73	The purpose of twisted pair cables in telecom cables is		
A	To reduce cross talk	C	For easy manufacturing
B	To give mechanical strength	D	To carry high currents

74	As per policy, within _____ km of an AT, power is to be extended by S&T department for signalling installations		
A	1	C	2.5
B	2	D	5

75	The recommended distance between a Signal post and the RE mast in front of it should be		
A	Less than 10 meters	C	Less than 30 meters
B	More than 10 meters	D	More than 30 meters

76	The recommended minimum clearance of a signal post from center of track is		
A	2.36 mts	C	2.12 mts
B	2.0 mts	D	None of the above

77	The Transmission loss in 0.9 mm conductor dia quad cable is _____ dB/km at 800 Hz		
A	0.63	C	0.24
B	0.36	D	0.12

78	Expand ADSL		
A	Asynchronous Digital Subscriber Line	C	Asymmetric Digital Subscriber Line
B	Asynchronous Data Subscriber Link	D	Asynchronous Digital Subscriber Line

79	The characteristic impedance of a switch board cable is _____ ohms		
A	500	C	1100
B	600	D	1400

80	The standard drum length of OFC cable is _____ Km.		
A	3	C	2
B	1	D	0.5

81	The cable used for connecting PC/Laptop in a LAN is		
A	Shielded coaxial cable	C	CAT 5/6/7 cable
B	Twisted pair cable	D	OFC

82	Work of Coach guidance is proposed under planhead		
A	3300	C	6400
B	5300	D	None of the above

83	TDM uses _____ sharing of the transmission media		
A	Phase	C	Time
B	Frequency	D	Amplitude

84	In RE area, WNPR relay shall be :		
A	Non AC immunized relay.	C	AC immunized relay.
B	Latch relay.	D	None of the above

85	The Loco Pilot on encountering an Auto signal at ON shall		
A	Wait 2 minutes by day and 1 minute by night and proceed at restricted speed	C	Waiting 2 minutes by night and 1 minute by day and proceed at restricted speed
B	Not pass an Auto signal at ON	D	Pass Auto signal without waiting

86	In a double distant territory the signal that indicates run through to Loco pilot is		
A	Distant	C	Home Signal
B	Inner distant	D	None of the above

87	The configuration of DC –DC converters in an IPS are in		
A	N+1 Redundancy	C	No redundancy
B	N+N Redundancy	D	None of the above

88.	DWDM stands for		
A	Double Wave Division Multiple Access	C	Dense wavelength division multiplexing
B	Dense wavelength division Multiple access	D	None of the above

89	A router is a _____ device		
A	Layer 2	C	Layer 3
B	Layer 0	D	None of the above

90	MPLS stands for		
A	Multi Protocol Layer Switching	C	Multi Protocol Label Switching
B	Multi Path Label Switching	D	None of the above

91	Combo port switches offer		
A	Electrical Interface	C	Wireless interface
B	Optical Interface	D	A and B

92	Technology used for cellular communications a		
A	GSM	C	LTE
B	CDMA	D	All the above

93	Attenuation losses in 6 Quad cable are measured by		
A	OTDR	C	Volt meter
B	Transmission measuring kit	D	None of the above

94	The Instrument used for checking colour coordinates of LED signal unit is		
A	Multimeter	C	Oscilloscope
B	OTDR	D	Spectrometer.

95	Q Series relay contacts are		
A	Metal to Metal	C	Can be A or B
B	Metal to Carbon	D	None of the above

96	Disconnection memo is to be given for		
A	Replacing a point machine	C	Measuring line currents in BI
B	Replacing Track relay	D	All of the above

97	What is the working voltage of Electric Lifting Barrier Gate of S&T/PTJ make?		
A	24 V	C	110 V
B	12 V	D	230 V

98	Moving spring for Q-Series relays is made from		
A	Phosphor bronze	C	Brass
B	Copper	D	Steel

99	The QTA2 Track relay manufactured by PTJS&T workshop has configuration.		
A	8F/8B	C	6F/6B
B	12F/4B	D	2F/1B

100	For works in existing yard, power of condonation for gradients steeper than 1 in 400 and flatter than 1 in 100 are under .		
A	CRS	C	GM
B	CCRS	D	Railway Board

101	When is "Hindi Day" celebrated every year?		
A	15th August	C	14 th September
B	2nd October	D	26th January

102	The clause of OL Act governing the documents to be in bilingual is		
A	3(1)	C	3(2)
B	3(3)	D	None of the above

103	For the purpose of implementation of OL Act the country is divided into		
A	3	C	5
B	4	D	None of the above

104	The Chairperson of the Central OL implementation committee is		
A	Prime Minister	C	Railway Minister
B	Home Minister	D	None of the above

105	What is the amount of Cash Award for passing Pragma with 60% more but less than 70%of marks.		
A	Rs.1800	C	Rs.1600
B	Rs.1900	D	Rs.1000

106	_____ state is classified in Region B as per official language rule.		
A	Karnataka	C	Maharashtra
B	Tamilnadu	D	Andhra Pradesh

107	The nodal Ministry takes important decisions pertaining to Official Language is		
A	Ministry of Education	C	Ministry of Civil Aviation
B	Ministry of Railways	D	None of the above

108	_____ state is classified in Region A as per official language rule.		
A	Tamil Nadu	C	Bihar
B	Gujarat	D	Nagaland

109	Under article No. _____ of the Constitution of India, Hindi is the Official Language of India		
A	351	C	343
B	345	D	None of the above

110	When was Official language Act enacted		
A	1947	C	1963
B	1990	D	1987